

**ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re: ExxonMobil Oil Corporation

NPDES Permit No. MA0000833

NPDES 08-_____

**PETITION FOR REVIEW OF A
NPDES PERMIT ISSUED BY EPA REGION I**

Dianne Phillips, BBO #552982
Holland & Knight LLP
10 St. James Avenue
Boston, MA 02116
(617) 573-5818
Fax (617) 523-6850

Counsel for Petitioner ExxonMobil Oil Corporation

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INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), ExxonMobil Oil Corporation ("ExxonMobil")¹, through its undersigned representative, respectfully submits this petition for review of the final National Pollutant Discharge Elimination System ("NPDES") Permit No. MA0000833 (the "NPDES Permit" attached hereto as Exhibit A) issued on September 29, 2008 by the United States Environmental Protection Agency, Region I ("Region I"). This petition is filed timely within thirty (30) days of issuance of the NPDES Permit. Petitioner ExxonMobil has standing to prosecute this petition as the applicant which filed timely comments on the draft permit during the public comment period, which comments were not adequately and rationally addressed by Region I.

As described more fully herein, certain conditions and effluent limits of the NPDES Permit (enumerated in the attached chart) (the "Contested Conditions") are based on one or more findings of fact and/or conclusions of law which are clearly erroneous, and/or involve the exercise of discretion and/or an important policy consideration which the Environmental Appeals Board ("EAB") should review. ExxonMobil identified these Contested Conditions in its comments filed with Region I on or about July 26, 2007. Region I's Response to Comments issued September 29, 2008, although lengthy, did not address adequately the specific issues raised herein in a meaningful fashion as required by 40 C.F.R. § 124.17(a)(2). *See In re Washington Aqueduct Water Supply System*, 11 E.A.D. 565, 585-86 (EAB 2004); *In re City of Port St. Joe & Florida Coast Paper Co.*, 7 E.A.D. 275, 292, 295-96 (EAB 1997). Therefore, ExxonMobil respectfully requests the EAB grant review of this petition.

¹ References to "ExxonMobil" herein include ExxonMobil Oil Corporation, and its predecessors-in-interest, as the context may require, with regard to past operation of the Everett Terminal.

BACKGROUND

ExxonMobil operates a bulk petroleum storage facility on a 110-acre former refinery site (which includes Sprague Energy, an asphalt storage and distribution facility formerly owned by Exxon Mobil Corporation) located in Everett, Massachusetts (the "Everett Terminal"). The Everett Terminal consists of a marine facility for off-loading product arriving by ship, a South Tank Farm (including the Sprague operation), and a North Tank Farm, where the Treatment Works are located. ExxonMobil received its first NPDES permit in 1986, which permit was renewed successfully in 1991 and 2000.

The Treatment Works, which were completely re-designed, constructed and permitted in the early 1990s, consist primarily of a sedimentation tank, a corrugated plate separator ("CPS"), a conventional API oil-water separator ("OWS"), a 2-chamber wet well, and a secondary settling or equalization tank, all with associated pumps and piping. The Everett Terminal drainage collection system, constructed approximately 40 to 80 years ago, consists of over 13,500 linear feet (almost 3 miles) of gravity sewer lines and approximately 7,000 feet (over 1 mile) of force mains ranging in size from less than 12 inches in diameter up to 60 inches in diameter, and over 100 vertical structures, which culminate at the Treatment Works before discharging into the Island End River through a non-owned, multi-user 1,500 foot culvert which is connected to ExxonMobil's facilities at a junction box located at the edge of the Terminal property. Flows through the Treatment Works consist primarily of storm water, with additional volumes generated by infiltrated groundwater, steam condensate and potable water used for hydrostatic testing, fire system testing, and other miscellaneous uses. Flows range in volume from a low of 60,000 to 130,000 gallons per day ("gpd") during dry weather to as much as 6 million gpd during wet weather.

Since 1991 (until issuance of the NPDES Permit on appeal), ExxonMobil had two, separate and distinct permitted discharge points (outfalls 001A and 001B) each with effluent limits reflecting the two process streams for treating discharge water created by the re-designed Treatment Works. Flow volumes up to approximately 4,500 gallons per minute ("gpm") were treated and discharged continuously through outfall 001A. Flow volumes in excess of approximately 4,500 gpm, generated by infrequent significant wet weather events, were treated and discharged through outfall 001B by manually operated pumps, approximately four to six times per year.² Since 1991, ExxonMobil has regularly met the permit limits imposed by the applicable NPDES Permit through both outfall 001A and 001B.

ISSUES ON APPEAL

- I. Whether Region I's decision to unilaterally eliminate previously permitted and compliant outfall 001B, an integral part of ExxonMobil's Treatment Works, coupled with its other operational requirements, amounted to impermissible interference with ExxonMobil's ability to design and operate its facility.
- II. Whether Region I's decision to apply technology-based effluent limits developed for discharges of treated contaminated groundwater to storm water dominated flows of up to six million gallons per day was legal error.
- III. Whether Region I's refusal to grant ExxonMobil's request for a compliance schedule with respect to operational conditions and newly interpreted water quality standards was an abuse of discretion.

ARGUMENT

A. Unilateral Elimination of Outfall 001B and Imposition of Associated Treatment Works Modifications were Improper

As described above, ExxonMobil's Treatment Works were completely re-designed, constructed and permitted between 1989 and 1991. At that time, EPA established two discharge and sampling points, identified as outfall 001A and outfall 001B, in the September 30, 1991 NPDES permit. Each had the same effluent limits, but reflected different treatment process paths

² See Response to Comments, Exh. E, Response 10(B), p. 36 of 72.

and different flow composition. Outfall 001A included dry weather flows and first flush flows of wet weather events, and outfall 001B discharged peak flows from infrequent significant wet weather events. Outfall 001A operated continuously without direct operator involvement, and outfall 001B was manually operated in accordance with specified principles. This same system was retained with the 2000 permit renewal.

When Region I published its Draft Permit and Fact Sheet (attached hereto as Exhibits B and C, respectfully), it was clear the agency did not fully understand how the Treatment Works operated. Region I believed that discharges through outfall 001B were *untreated* bypasses of the Treatment Works, and therefore proposed to eliminate such discharges except in extreme weather such as hurricanes. *See, e.g.*, Fact Sheet, Exh. C, at Section 6.3.1.1 (p. 15 of 26) ("draft permit intended to prevent frequent discharges of untreated storm water and groundwater"); Section 6.29 (p. 13 of 26) ("Since bypasses have been prohibited in the draft permit, outfall 001B will no longer exist after new permit conditions take effect").

Coupled with the elimination of outfall 001B, the Draft Permit also required the installation of a 3,000 gpm flow restriction, less than the total capacity of the pumps connected to outfall 001A, and required the operation of the modified system such that it treated both peak flow and total volume of storm water and groundwater which would result from a 10-year 24-hour precipitation event. As the rationale for these substantial system changes, including elimination of outfall 001B, Region I claimed the "prohibition against treatment system bypasses is consistent with EPA Region I requirements at other petroleum bulk storage facilities in the Boston Harbor area." Fact Sheet, Exh. C, Section 6.3.1.1 (p. 15 of 26).³

³ Region I also relied erroneously on effluent limit guidelines for point source storm water discharges from the steam electric power generating industry, 40 C.F.R. Part 423, and the mineral mining and processing industry, 40 C.F.R. Part 436, which exclude from permitting obligations emergency discharge of "untreated overflow" to support its position that so-called "treatment system overflows" were only permitted in these extraordinary weather events,

Exxon Mobil challenged the elimination of outfall 001B based on these erroneous facts, along with challenging the associated requirement to install a flow restriction device and operate the system (as modified by the conditions) such that it treated both peak flow and total volume of storm water and groundwater which would result from a 10-year 24-hour precipitation event. See ExxonMobil Comments, Exh. D, at General Comment 4, Draft Permit Comments 13, 17, 21, 22, Fact Sheet Comments 18, 20, 21, 25, 26. Specifically, ExxonMobil objected to the proposed "operations restrictions ... imposed without apparent regard for how the entire system operates, and without sufficient time to investigate and redesign the treatment works as needed." General Comments, Exh. D, at p. 12. Region I cited no authority or prior case "where previously permitted outfalls were eliminated with the stroke of a pen." *Id.*⁴

ExxonMobil also challenged Region I's reliance on 40 C.F.R. 423.12(b)(10) to support the newly-added requirement to treat peak flow through the entire treatment works as modified by the permit, without the use of outfall 001B. See Draft Permit Comment 17 & General Comment 4, p. 12 n.24 (Exh. D).⁵ Lastly, ExxonMobil questioned Region I's authority to dictate specific modifications to its Treatment Works relying on Region I's own statements that the NPDES program was charged with determining effluent limits and not designing "the many alternatives there are likely to exist to meet potential permit requirements."⁶

Recognizing the validity of ExxonMobil's comments and the clear error in its understanding of how the Treatment Works operated, Region I eliminated the requirement to

further confusing its misunderstanding of the operation of outfall 001B. See Fact Sheet, Exh. C, at Section 6.3.1 (p. 14 of 26).

⁴ Outfall 001B was also fully compliant with Massachusetts regulations. See 314 C.M.R. § 3.19 (13) (State Standard Permit Conditions allowing a "bypass" of any **portion** of a treatment works where effluent limitations are **not** exceeded and as necessary "to assure efficient operation of treatment facilities" as in ExxonMobil's case). This point was raised in ExxonMobil's Comments and never addressed by Region I. See Exh. D, General Comment 4, p. 12.

⁵ Since 1991, when the re-designed Treatment Works were permitted, ExxonMobil's permit contained the requirement to treat and/or manage **total flow** produced by a 24-hour rainfall occurring with a frequency of once in 10 years (Part I.B.2.a.(2)). This condition was satisfied with the additional information provided by CDM by letter dated March 24, 1992, referred to and attached to ExxonMobil's comments, Exh. D, at p. 12 & n.21.

⁶ See December 7, 2006 letter from Ellen B. Weitzler to Mr. Rosendo Cruz referenced at Exh. D at p. 12 & n. 22.

install a 3,000 gpm flow restriction device in the Final Permit. *See* Region I's Response to Comments ("RTC"), attached hereto as Exh. E, at Response 33 (p. 50 of 72); Response 10 (pp. 36-38 of 72); Response 76 (p. 69 of 72). However, this change did not address the entirety of ExxonMobil's comments, and did not cure Region I's overreaching intrusion into ExxonMobil's operations. Rather, Region I claimed:

EPA acknowledges a mistake in the description in section 6.3.1.1 of the fact sheet. Outfall 001B is intended as a bypass of Tank 140, not the entire treatment works. EPA's inartful description does not change its ultimate determination.

RTC, Exh. E, Response 10(B), p. 36 of 72.⁷ In sum, EPA believes the Treatment Works are providing inadequate treatment (revised from its original belief that outfall 001B provided no treatment whatsoever) for the process through Outfall 001B. *See, e.g.*, RTC, Exh. E, Response 34, p. 50 of 72. Region I admits, however, that "discharges have met the levels set for compliance enforcement" a/k/a the permit limits. RTC, Exh. E, Response 58, p. 58 of 72.⁸

That belief, however, is not an adequate basis for Region I to impose its own version of operational micro-management, eliminating outfalls, changing the design basis of the Treatment Works, and requiring unnecessary and impractical certifications. As Region I admits, its authority is to establish effluent limits based on statutory and regulatory requirements and "not dictate any particular mode of compliance." RTC, Exh. E, Response 10(B), p. 37 of 72. In this case, Region I made substantial adjustments downward for both technology-based and water quality based-effluent limits (discussed elsewhere in this Petition). It should have eliminated all

⁷ Region I also acknowledged an error in interpreting PAH data in the DMRs. Specifically, the Fact Sheet reported that "[d]uring the last three sampling events of 2006, all sixteen priority pollutant PAHs were detected in effluent samples from Outfall 001." *See* Fact Sheet, Exh. C, p. 17 of 26. However, when this error was pointed out, Region I, again, acknowledged "the error made in interpreting DMRs using the agency's new data management software (ICIS)" but concluded "[t]his mistake only affected data from the last four months of 2006 out of 60 months included on the DMR summary and had no impact on EPA's permit determination." RTC, Exh. E, Response 9(C), p. 34 of 72. In reality, the results were reported as "<" (less than) the detection limit, but the less than symbol was missed.

⁸ ExxonMobil disputes EPA's assertion that the Treatment Works provided inadequate treatment in the past (but recognizes that the imposition of new technology-based and water quality based effluent limitations, to the extent they survive appeal and once final, will require additional measures). *See* Fact Sheet Comment 25, Exh. D, at p. 13.

of the specific operational dictates when it revised the Final Permit to eliminate the proposed flow restriction. Region I should have followed its own advice and left "ExxonMobil ... free to choose the mode of compliance, and, in the course of doing so, retain[] the ability to consider its own operational needs and industry standards." *Id.*; see also RTC, Exh. E, Response 61(C), p. 60 of 72 ("EPA agrees that the permit should provide flexibility in designing and operating the system."). "These contradictory positions are confusing, and ... cast doubt on the accuracy of the Region's responses to the Petitioners' comments on the draft permit." *In re City of Port St. Joe & Florida Coast Paper Co.*, 7 E.A.D. 275, 304-05 (EAB 1997).

Moreover, Region I failed to supply any substantive response, including citation to any authority or other permit EPA has issued, to address ExxonMobil's comment that unilateral elimination of a previously permitted and compliant outfall was unprecedented in its experience, and we know of no other case where such action has occurred. Rather, Region I simply stated:

EPA disagrees with the commenter's understanding that the permit "eliminates" any outfalls. Outfall 001B is not a physically distinguishable outfall as the discharges that make up outfall 001A and 001B are, in fact, from the same source.

RTC, Exh. E, Response 10(B), p. 37 of 72; compare RTC, Response 38, p. 52 of 72 ("EPA acknowledges that ExxonMobil applied to retain outfall 001B."); Response 58, p. 58 of 72 ("Since the effluent limits and monitoring requirements for outfall 001B are not (*sic*) longer in the permit, a sampling location for this location is no longer needed."); Fact Sheet, Exh. C, Section 6.29 (p. 13 of 26) ("Since bypasses have been prohibited in the draft permit, outfall 001B will no longer exist after new permit conditions take effect").

Even assuming, *arguendo*, Region I's statement that the discharges which flow through outfall 001A and outfall 001B are from the same source is true, that point is legally irrelevant and does not support the decision to "eliminate" outfall 001B, a previously permitted and compliant outfall. Many facilities have different outfalls, representing different process

treatment streams, to treat discharges from the same sources. Indeed, one of the permits newly relied on by Region I in its RTC (Exh. E, p. 7 of 72), the General Electric facility in Lynn, Massachusetts (NPDES Permit MA0003905) specifically authorizes separate outfalls for wet weather and dry weather, and four different process scenarios ranging from treatment using both dissolved air flotation and granular activated carbon to direct discharge without treatment, depending on the situation and flow rate encountered. *See* NPDES Permit MA0003905, Fact Sheet, p. 3 (1993) ("As part of this draft permit, 10 outfalls that discharge stormwater in Wet Weather have now been separately identified, each with its individual Effluent Limitation page."); Clarifying Questions & Responses, p. 3, No. 5 (Jan. 18, 2007) (treatment system was designed to operate in any one of four process scenarios).

Moreover, on the day after ExxonMobil's permit was issued⁹, Region I authorized General Electric Company to discharge *untreated* groundwater infiltration contaminated with PCBs (along with city water and storm water) through outfall 05B (identified as "untreated overflow from the 005 drainage system") during "wet weather conditions" (defined as "any day on which more than 0.1 inches of total precipitation falls ...") without any PCB effluent limit whatsoever. *See* NPDES Permit MA0003891, Part I.A.6. & n.7 (pp. 7, 14 of 24) (Sept. 30, 2008). GE's outfall 05B represents a true bypass, while its outfall 05A represents essentially the same treatment as ExxonMobil's outfall 001B, a wet weather overflow from an oil/water separator. Also note that GE was permitted to discharge wet weather overflows through both outfall 05A and outfall 05B after only 0.1 inches of precipitation within a 24-hour period. This is far less than the obligation placed on ExxonMobil to manage both peak flow and total flow

⁹ *See* <http://www.epa.gov/region1/npdes/permits/2008/finalma0003891permit.pdf>

Because of the timing of issuance of this permit, ExxonMobil did not raise this specific example in its comments filed within the public comment period which closed over a year ago in July 2007. Nevertheless, Region I was aware of this permit because it was cited in its Response to Comments, Exh. E, Response 1, p. 8 of 72.

from a 10 year, 24-hour storm. *See infra*. Region I failed to adequately respond to ExxonMobil's comments, resorting instead to semantics concerning the definition of the word "elimination." Simply put, Region I's response was inadequate. *See In re Washington Aqueduct Water Supply System*, 11 E.A.D. 565, 585-86 (EAB 2004) (and cases cited).

With respect to ExxonMobil's comments concerning the newly-added requirement to treat peak flow, Region I stated that it had "revised the language in part I.A.14 of the permit to clarify the reference to peak flow volume" but no such change occurred. *See* RTC, Exh. E, Response 29, p. 48 of 72 & Response 10(C), pp. 37-38 of 72; *compare* Draft Permit, Exh. B, Section I.A.14, p. 5 of 11 *to* Final Permit, Exh. A, Section I.A.14, p. 5 of 11 (containing verbatim discussion). At a minimum, Region I should withdraw this condition, or the EAB should remand the matter, to correct this situation.

However, even if the Final Permit were revised to clarify that Region I requires, in addition to the elimination of outfall 001B, that ExxonMobil provide storage to equalize the peak flow volume prior to flow through the treatment works as stated in Response 29, ExxonMobil believes the imposition of these specific operational requirements, especially when taken together, go beyond reasonable discretion. As a policy matter, the agency should achieve the Clean Water Act goals through the imposition of effluent limits developed in accordance with established legal requirements and not through ad hoc attempts to micro-manage the permittee's treatment works.

Lastly, Region I's revised condition, Part I.A.21 in the Final Permit, eliminating a specific flow restriction device and replacing it with a requirement that ExxonMobil provide a certification of the maximum design flow for each component of the wastewater treatment

system (as modified by the remaining conditions) is more of the same.¹⁰ See RTC, Exh. E, Response 76, p. 69 of 72. Region I has improperly tied the permittee's hands by first eliminating an integral component of the Treatment Works (Outfall 001B), then arbitrarily revising the design basis of the previously permitted facilities to include the requirement to treat peak flow through the entire system, culminating with the impossible obligation to certify the maximum design flow for each component.¹¹

Specifically, it is a well-known engineering principle that the capacity of Treatment Works, consisting primarily of one or more oil-water separators, is determined based on a number of factors, only one of which involves flow rate. Therefore, Region I's requirement that ExxonMobil certify the maximum design flow for each component requires an impossible analysis dependant on numerous and variable factors, including water temperature, flow rate, discharge composition, oil concentration, type of petroleum and oil droplet size. Moreover, a requirement to certify each component is unduly burdensome to the extent it applies to every single item which comprises a part of the system, as opposed to a requirement to certify the capacity of the entire system. Additionally, as described herein, the Treatment Works were designed and permitted with outfall 001B as an integral part. Therefore, any effort to certify the design flow of the system (or each component) without outfall 001B will be necessarily misleading.

This entirely new requirement, not identified in the Draft Permit, is purportedly justified in Response 33. See RTC, Response 33, p. 50 of 72. It states:

EPA finds that the flow control device requirement of Part I.A.21 can be made more flexible and has modified it to require that the flow through the oil/water

¹⁰ This is a new requirement added at the time the Final permit was issued, and thus was not addressed directly in ExxonMobil's comments during the public comment period.

¹¹ Although Region I permitted GE's overflows through outfall 05A and 05B, it did not require any sort of certification of the design before such overflows would be permitted. See NPDES Permit MA0003891 (Sept. 30, 2008).

separator not exceed design flow, removing the specific requirement to install a flow control device. Flow control may be achieved through pump controls or other means. A requirement to certify the design flow has been added.

Id. Newly added permit conditions which were not included in the Draft Permit must be explained beyond a single sentence. *See In re City of Marlborough, Massachusetts, Easterly Wastewater Treatment Facility*, 12 E.A.D. 235, 244-45 (EAB 2005). "Under 40 C.F.R. § 124.17(a)(1), in responding to public comments, the Region must specify the reasons for any changes to the draft permit." *Id.* As stated in its comments, ExxonMobil understands its regulatory obligations, pursuant to 40 C.F.R. § 122.41(e), to properly operate the treatment works within their design parameters, a point EPA does not dispute. *See* RTC, Exh. E, Response 10(B) (p. 36 of 72). Here, Region I provided no reason for the newly-added certification requirement, and failed to address ExxonMobil's comment that it was required by regulation to operate the system within its design parameters (and thus such certifications are unnecessarily burdensome).

Like the elimination of outfall 001B, Region I's attempts to piecemeal micromanage the design and operation of ExxonMobil's facilities should be rejected because they are based on an admittedly erroneous understanding of how the entire system works, substitute EPA's unsupported "belief" that the Treatment Works are inadequately designed for a thorough engineering design analysis of such works, and are inconsistent with longstanding EPA policy, referred to throughout the RTC, limiting the permit writer's role to setting effluent limits based on established legal standards (and leaving the design and operation of the system used to achieve compliance to the permittee). Accordingly, adding a requirement to certify one factor related to the system's capacity (design flow) is both unnecessarily burdensome and potentially misleading in its application.

In summary, the EAB should grant review of these Contested Conditions, including the requirement to eliminate outfall 001B, because Region I failed to adequately address ExxonMobil's comments, making contradictory and illogical statements in its RTC recognizing, on the one hand, the agency's inability and reluctance to direct specific technology, and yet imposing conditions (in addition to effluent limits), which mandate particular design changes. The circumstances of this case amount to an abuse of discretion and/or an important policy consideration which the EAB should review. Moreover, Region I's response to comments failed to adequately address legitimate issues raised by ExxonMobil during the comment period.

B. Region I Failed to Support its Decision to Apply "Best Professional Judgment"

Notwithstanding the lengthy and detailed Response to Comments in which Region I articulated for the first time its site-specific BPJ analysis (*see* RTC, Exh. E, Response 1, p. 5 of 72), Region I failed to address the heart of ExxonMobil's comments, namely that it is an improper abuse of discretion to apply a treatment technology developed to treat low-flow discharges of contaminated groundwater to effluent dominated by storm water.¹² As described previously, ExxonMobil's storm water collection system encompasses miles of gravity based sewer lines, which generate peak flows up to 6 million gallons per day ("gpd") during wet weather. The dry weather flow, mainly composed of infiltrated groundwater, is approximately 60,000 to 130,000 gpd.

Against this background, Region I admits that for it to apply "transfer technologies" (technologies from another industry that can be "transferred" to the industry in question), it must specifically determine that the proposed technology would be feasible at the Everett Terminal, and cannot rely simply on the fact that the technology worked at a different facility. *See* RTC,

¹² ExxonMobil challenges each of the VOC effluent limits established by BPJ, including Benzene, Total BTEX, Methyl Tertiary-Butyl Ether ("MTBE"), and oil and grease.

Exh. E, Response 1, p. 7 of 72 ("Accordingly, a technology that would be infeasible at the Everett Terminal would not be the BAT for this permit, even if that technology worked at a different facility.").¹³ Therefore, comparisons to other terminals must be carefully scrutinized.

See infra.

Permit writers must strive to make permits based on BPJ "technically sound and reasonable" so as to withstand scrutiny. *See* Office of Wastewater Management, *U.S. Environmental Protection Agency NPDES Permit Writers' Manual* ("NPDES Permit Writers' Manual" or "Manual") 69 (Dec. 1996). "Technically sound permit conditions" are "conditions that are achievable with *existing* technology." *Id.* at 70 (emphasis supplied). In summary, BPJ limits must be carefully drafted to withstand scrutiny and must be technically sound, economically reasonable, based on unimpeachable information, and derived logically from the data through established procedures. *Id.* at 205. Failure to consider any one of the statutory and regulatory factors constitutes an abuse of discretion. *See Texas Oil & Gas Ass'n v. U.S. Env'tl. Protection Agency*, 161 F.3d 923, 934 (5th Cir. 1998).

Here, Region I "determined that the best performing facilities in terms of removing volatile organic compounds (VOCs- benzene, ethylbenzene, toluene, xylenes, and methy tertiary butyl ether) and oil and grease from contaminated groundwater are utilizing liquid phase carbon adsorption preceded by oil water separation and filtration." RTC, Exh. E, Response I, p. 7 of 72. This technology, studied as part of the Remediation General Permit ("RGP") issued by Region I in 2005, involves treating "low volume" wastewaters and are typically designed with flow rates of a few gallons per minute up to about 40 gallons per minute for a maximum flow of approximately 40,000 gpd. *See* USEPA 2005 *Fact Sheet, Proposed Remediation General Permit*

¹³ "EPA acknowledges that the Everett Terminal is a large facility with a long industrial history, and that EPA is permitting against a backdrop of considerable technical complexity." RTC, Exh. E, Response 5, p. 20 of 72.

Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts and New Hampshire, at pp. 29, 37, 57. Thus, the maximum flow rate of the technology Region I concluded was applicable is approximately two-thirds the rate of the *lowest* daily flow rate experienced at the Everett Terminal.

In response, Region I admits

EPA has found that the typical discharge being covered [by the RGP] is indeed around 40,000 gallons per day (gpd). However, several *atypical* sites are being covered by the RGP which treated groundwater discharges as high as 200,000 to 400,000 gpd.

RTC, Exh. E, Response 6(C), p. 25 of 72 (emphasis supplied). From this statement Region I nevertheless concludes "effluent limits are equally applicable to larger facilities." *Id.* Region I, however, never cites to any particulars of these cases, and never says another word about ExxonMobil's concern that the technology is not applicable to the range and volume of flows experienced at the Everett Terminal,¹⁴ which far exceed even these "atypical facilities." Region I's response was inadequate. *See In re City of Port St. Joe & Florida Coast Paper Co.*, 7 E.A.D. 275, 292-96 (EAB 1997) (Region's explanation of BPJ analysis in response to comments that "merely states the obvious" is insufficient to withstand scrutiny).

Moreover, Region I's analysis of Best Practicable Control Technology ("BPT"), Best Conventional Control Technology ("BCT") and Best Available Control Technology ("BAT") factors pursuant to 40 C.F.R. § 125.3(d) misses the point. Where BAT applies,¹⁵ the permit writer must consider the following:

- (i) The age of the equipment and facilities involved;
- (ii) The processes employed;
- (iii) The engineering aspects of the application of various types of control techniques;

¹⁴ That intermittently consist principally of large volumes of storm water.

¹⁵ The EPA has classified benzene, toluene and ethylbenzene as a toxic pollutants, which are subject to BAT. *See* 33 U.S.C. § 1317(a)(2); 40 C.F.R. § 401.15. Xylene and MTBE are nonconventional pollutants, which are also subject to BAT. *See* 33 U.S.C. § 1311(b)(2)(F).

- (iv) Process changes;
- (v) The cost of achieving such effluent reduction; and
- (vi) Non-water quality environmental impact (including energy requirements).

40 C.F.R. § 125.3(d)(3).

Region I's analysis of factor (ii), the process employed, is nonsensical. Specifically, Region I concluded

Neither the BAT/BCT mandated by EPA in this permit would prevent or interfere with the primary production process, *i.e.*, the continued operation of the facility as a bulk petroleum storage and distribution facility.

RTC, Exh. E, Response 1(B), p. 11 of 72. The regulation requires an analysis of the process employed *in the discharge*. See *In the Matter of Miners Advocacy Council*, 4 E.A.D. 230, 233 (EAB 1992) (proper BPJ determination must include site-specific factual analysis of the entire process employed upstream from a discharge point or points). Where the discharge is composed of industrial process flows the nature of the permittee's business operations is a critical factor. Here, however, Region I failed to address how the technology imposed, liquid phase carbon adsorption preceded by oil water separation and filtration, would apply to ExxonMobil's drainage collection system and Treatment Works. *That* is the process Region I was required to analyze as described in ExxonMobil's comments. See Exh. D, General Comment, p.5 (raising the variable, unpredictable, and large flow rate through miles of gravity drains as elements of the "process employed" factor which Region I must consider). Consideration of this mandatory factor was deficient, and Region I's response to ExxonMobil's comment on this point was non-existent. Therefore, review should be granted.

Next, Region I failed to adequately address ExxonMobil's complaint that it was improper to apply "a lower technology-based effluent limit for one of several different sources/process streams to an entire commingled stream (especially without some sort of weighted apportionment based on flow volume)." Exh. D, General Comment 1, p. 8. Throughout various

communications with Region I, ExxonMobil repeatedly raised this issue, pointing out, for example, that the other permits for which this technology was applied had separate groundwater treatment facilities and segregated flows, or employed separate dry weather and wet weather outfalls (and limits).¹⁶

Comparisons to the so-called "Chelsea Creek" facilities, do not support EPA's BPJ determination here because, among other things, the lower, technology-based limits were imposed where existing groundwater pump and treat systems were installed as required by the Massachusetts Contingency Plan ("MCP") governing groundwater remediation and where prior NPDES "Exclusion letters" (the regulatory predecessor to the RGP) were already in place. *See, e.g.,* Global Petroleum Corporation, NPDES Permit No. MA0003425 (Fact Sheet, p. 10); Global REVCO Terminal, LLC, NPDES Permit No. MA0003298 (Fact Sheet, p. 7); Chelsea Sandwich, LLC, NPDES Permit No. MA0003280 (Fact Sheet, p. 8); *see also* "Chelsea Creek" Response to Comments, pp. 17-18 (EPA rejects commenter which urged requirement of groundwater treatment technology be imposed with lower, technology-based effluent limits at all terminals due to known contamination, not just those with preexisting pump & treat systems). ExxonMobil does not have, and is not required to have¹⁷, a groundwater pump and treat system, so analogies to these permits do not meet the BPJ standard.¹⁸

¹⁶ *See also* Argument A, *supra*, objecting to elimination of outfall 001B, which was essentially a wet weather outfall.

¹⁷ Compare Global Petroleum bulk storage facility in Revere, NPDES Permit No. MA0003298, cited by Region I where it admits "the facility *was required by MassDEP* to install a treatment system (liquid phase carbon absorption) to treat all commingled discharges flowing through the storm water conveyance system which discharges to Chelsea Creek." RTC, Exh. E, Response 1(B), p. 8 of 72 (emphasis supplied). No such requirement exists in ExxonMobil's case, and it is fully-compliant with all MassDEP requirements.

¹⁸ Similarly, Region I's citation to the ConocoPhillips bulk petroleum facility in East Boston (NPDES Permit MA0004006) is likewise inapplicable. *See* RTC, Exh. E, Response 1(B), p. 8 of 72; Response 6(A), p. 24 of 72. Although ConocoPhillips did not have a previous "exclusion letter," it did have a groundwater extraction system, to which more stringent, technology-based effluent limits were applied before the flow was commingled and discharged with storm water. ExxonMobil has no such system, and in fact, prior evaluations submitted to the MassDEP determined such a system would be infeasible. *See, e.g.,* Phase III Remedial Action Plan (Dec. 29, 1999); Class C Response Action Outcome Status Report #3 (Jan. 26, 2006).

Additionally, authority newly-relied upon by Region I in its RTC¹⁹ actually support ExxonMobil's argument that where there are combined flows of infiltrated groundwater and storm water, it is improper to lump both flows together and impose the more stringent, dry weather limits on everything. Specifically, both the General Electric (Lynn) (NPDES Permit MA0003905) and the General Electric (Pittsfield) (NPDES Permit MA0003891) permits provide for separate effluent limits for dry weather (infiltrated contaminated groundwater and/or industrial process streams) and wet weather (storm water), the former issued in 1993 and the latter issued the day after ExxonMobil's permit in September 2008. Although Region I cites them for the fact that some facilities have been engaged in efforts to re-line or otherwise replace drainage lines to prevent groundwater infiltration where feasible, the point remains that neither facility was forced to achieve (immediately upon issuance of the permit) lower effluent limits for flows dominated by storm water during wet weather. See RTC, Response 1(B), pp. 7-8 of 72. Indeed, in both cases, under certain circumstances, direct discharge of *untreated* effluent from the combined sources is permitted without application of lower effluent limits. In the Pittsfield case, wet weather overflows (permitted when precipitation exceeds only 0.1 inch in a 24 hour period) contain *no* effluent limit for PCBs (the contaminant of concern) and require monitoring only, even though prior data indicated that PCBs above the water quality standard were being discharged during wet weather. Therefore, Region I has not supported its decision to impose lower contaminated groundwater effluent limits on flow dominated by storm water, especially in wet weather.²⁰

¹⁹ Neither of these permits were referred to in the Fact Sheet or any communications with Region I before issuance of the RTC. Region I relied solely on the RGP and the so-called "Chelsea Creek" permits as the basis for its proposed application of BPJ limits here.

²⁰ Region I's reliance on Coal Mining effluent limit guidelines, 40 C.F.R. Part 434, is entirely misplaced. See RTC, Exh. E, Response 1(B), p. 9 of 72, n. 13. That subsection was added as a result of litigation concerning the mining industry and was promulgated along with a so-called "storm exemption", 40 C.F.R. § 434.63. See 47 Fed. Reg. 45,382 (Oct. 13, 1982). Section 434.61, relied on by Region I, relates to commingled waste streams from different

Lastly, Region I's explanation as to how it arrived at the oil & grease BPJ limit of 5 mg/L, as opposed to the current long-standing policy limit for bulk petroleum facilities of 15 mg/L, is especially unresponsive. Specifically, ExxonMobil commented that

EPA has not adequately supported its decision, which effectively applies one technology-based effluent limit for oil and grease to the contaminants coming from storm water (15 mg/L) and a different technology-based effluent limit when the contaminant comes from groundwater (5 mg/L). This is simply illogical and unsupported.²¹

Exh. D, General Comment 1 at p. 8 (footnote in original). While Region I agreed that the appropriate effluent limit for storm water from bulk petroleum terminals was 15 mg/L (*see* RTC, Exh. E, Response 8(C), p. 30 of 72), it concluded that "[u]nder the CWA EPA is obligated to apply technology-based effluent limits when they are stricter than water quality-based limits." RTC, Exh. E, Response 8(D), p. 30 of 72. This response is meaningless because both limits in this case were technology-based, and the higher limit was not a water quality-based limit. Rather, it is based on longstanding application of OWS technology to the petroleum industry. This is another area where a specific comment was not adequately addressed, and thus review should be granted.

In summary, Region I has a high burden when applying case-by-case BPJ, especially when seeking such a dramatic change from long-standing industry practice and the permitted practice of the particular facility which, in this case, has been in place since 1991. *See* Office of Wastewater Management, *U.S. Environmental Protection Agency NPDES Permit Writers' Manual* p. 205 (Dec. 1996); *In re City of Port St. Joe & Florida Coast Paper Co.*, 7 E.A.D. 275, 292-96 (EAB 1997) (vague response which does not address the specific comment does not

facilities, not waste streams combined with storm water, which is governed by § 434.63 (which actually supports ExxonMobil's position that storm water dominated flows should be subject to different effluent limits).

²¹ Additionally, by proposing to set the compliance limit for conventional pollutant, oil & grease, at the detection limit of EPA-approved Method 1664A, it has concluded essentially that ExxonMobil is not permitted to discharge oil & grease at all, effectively overruling years of EPA policy and regulation of the petroleum industry.

satisfy BPJ requirement). Here, ExxonMobil raised significant and substantial concerns which were not adequately addressed in the response to comments. Therefore, its Petition for Review should be granted.

C. Region I Erroneously Concluded that ExxonMobil was Not Entitled to an Implementation or Compliance Schedule to Implement the Operational Requirements and Newly Interpreted Water Quality Standards

Region I eliminated the original 3 month compliance period to undertake certain of the operational modifications because, it claimed, "statutory deadlines for complying with technology based requirements of the CWA have expired." *See* RTC, Exh. E, Response 33 (p. 50 of 72). However, that simplistic analysis does not end the inquiry. ExxonMobil believes that it should be entitled to an implementation or compliance schedule to address the newly interpreted water quality standards for PAHs and to address the non-effluent limit based operational requirements (to the extent they survive this appeal).

First, the Clean Water Act ("CWA") statutory deadlines apply to technology-based *effluent limitations*. *See* 33 U.S.C. § 1311(b); 40 C.F.R. 125.3(a)(2)(i)(B) (specifically referring to the deadline for compliance with "effluent limitations" established on a case-by-case basis based on Best Professional Judgment as no later than March 31, 1989). Region I cites no authority for the proposition that non-effluent limitation conditions are subject to the same statutory deadlines. Indeed, both the 1991 and 2000 permits, issued after the CWA statutory deadline, included implementation schedules for required construction. In the 1991 Permit, Part I.B.3.a. and b. provided "[c]onstruction of any required facilities shall begin within 18 months of the effective date of the permit" and be completed within 24 months of the effective date. Similarly, the 2000 Permit provided that construction must begin within 9 months of the

effective date and be completed within 24 months. Therefore, Region I failed to adequately address ExxonMobil's request for an implementation schedule within the permit.²²

Additionally, Region I argues, for the first time in its RTC, that PAHs were measured above 0.031 µg/L in 36% of the samples from outfall 001A and in 77% of samples from outfall 001B (Response 10(B), p. 36 of 72) as the basis for imposing the operational requirements. Here, ExxonMobil's existing permit limit for individual PAHs is 10 µg/L.²³ In addition to the operational conditions it imposed, Region I also proposed "New Water Quality Criteria Permit Conditions" which were subsequently revised to correspond with current Minimum Levels ("MLs").²⁴ The result was substantially lower permit levels, orders of magnitude lower in some cases. See Final Permit, Exh. A, Part 1.A. 18 (p. 6 of 11). These PAH limits are newly interpreted water quality standards for which a compliance schedule may be granted under State water quality standards. Moreover, given that Region I is concerned about the adequate level of treatment for PAHs (a water quality based requirement), operational changes needed to address these water quality based requirements should not be subject to technology-based deadlines.

Specifically, pursuant to 314 C.M.R. 4.03(b), under Massachusetts Surface Water Quality Standards, a "permit may, when appropriate, specify a schedule leading to compliance with the Massachusetts and Federal Clean Water Acts and regulations ... to afford a permittee adequate time to comply with one or more permit requirements or limitations that are based on new, newly interpreted or revised water quality standards that became effective after both issuance of the initial permit for a discharge and July 1, 1977." Since the decisions in *In re Star-Kist Caribe*,

²² Region I's assertion that a "schedule of compliance will be addressed through an administrative compliance order" (Response 33, p. 50 of 72) is not sufficient because such an order can only be issued as part of an enforcement case under 33 U.S.C. § 1319(a)(3). See *In re District of Columbia Water and Sewer Authority*, NPDES Appeal Nos. 05-02, 07-10, 07-11, and 07-12, 13 E.A.D. ____ (EAB March 19, 2008) (slip op. at p. 29) (offer in the Fact Sheet to include a compliance schedule in a Consent Decree was insufficient).

²³ As noted earlier, these results did not violate the existing permit limits.

²⁴ Region I identified these PAH effluent limits as "New Water Quality Criteria Permit Conditions" in its PowerPoint Presentation made at the public hearing on July 11, 2007 (p. 11).

Inc., 3 E.A.D. 172 (Adm'r 1990), *modification denied*, 4 E.A.D. 33 (EAB 1992), it has been clear that the statutory deadlines of the CWA do not bar inclusion of a schedule of compliance to address water quality based requirements so long as the relevant State water quality standards permit such a compliance schedule. *See In re District of Columbia Water and Sewer Authority*, NPDES Appeal Nos. 05-02, 07-10, 07-11, and 07-12, 13 E.A.D. ____ (EAB March 19, 2008) (slip op. at pp. 26-27); *In re City of Ames, Iowa*, 6 E.A.D. 498 (EAB 1996) (matter remanded to determine if compliance schedule warranted under provisions of state law).

Moreover, Region I has included implementation or compliance schedules in recent permits where significant work was needed to address the storm water collection system as part of required Best Management Practices ("BMPs"). *See General Electric Company*, NPDES Permit MA0003891, Part I.D (pp. 20-22 of 24) (Sept. 30, 2008). This permit, issued the day after the ExxonMobil permit, also contained a "PCB interim compliance limit for the dry weather discharge from outfall 005 ... until compliance with the ML (0.065 µg/l) is achieved in accordance with the schedule set forth below." *Id.* A similar schedule and plan should have been included in ExxonMobil's permit as it is patently unfair and discriminatory to have such differing standards come out of the same office virtually the same day.

Region I improperly based its denial of ExxonMobil's request for an implementation or compliance schedule on an incomplete analysis relying solely on the CWA statutory deadline for technology-based effluent limitations. As a result, ExxonMobil respectfully requests its Petition for review be granted.

D. Miscellaneous Errors

There are several places where errors exist in the Final Permit, Exh. A, which need to be corrected. For example, Part I.A.1, footnote 9, refers to monthly metals and hardness monitoring requirements, but metals are required to be monitored on a quarterly basis. Additionally, the

required sampling for hardness, total solids, calcium, and magnesium is an unnecessary requirement given that the test species is *Americamysis bahia*. These are salt water species and fresh water samples (i.e., the effluent) from the discharge have to be spiked with marine sea salts to raise the test salinity to about 24 ppt. The amount of salts added in the sea salt are so large compared to existing effluent water quality that hardness is totally irrelevant.

ExxonMobil questions the requirement to "include a heated purge" for EPA Method 602 in the analytical method for MTBE. See Final Permit, Exh. A, Part I.A.1, footnote 1. EPA Method 602 does not include a heated purge as part of the method and EPA did not provide a basis in the RTC, Exh E, to justify its use. ExxonMobil questions this requirement because there are no instructions in Method 602 on how to incorporate a heated purge into the analytical method and the necessary Quality Assurance/Quality Control objectives for MTBE are not identified. Method 8260B does have MTBE as a target analyte but is not an approved method under 40 CFR 136 and does not include a heated purge either. Therefore, the heated purge requirement should be removed.

Method SW 846 8015B is not an approved method under 40 CFR 136 for analyzing ethanol. See Final Permit, Exh. A, Part I.A.1, footnote 1.²⁵ The azeotropic distillation using method 5031 is not part of the Method SW 846 8015B and EPA has not justified its basis for including this procedure in the recommended method. In addition, when wastewater ethanol sampling was performed in the development of the pharmaceutical manufacturing effluent limitations guidelines, Method 8015B was used without azeotropic distillation. Method 8015B is a direct injection GC method that is virtually identical to Method 1671. EPA Region I should have assigned the available 40 CFR 136 method, Method 1671, as the appropriate monitoring

²⁵ ExxonMobil raised in its comments the need to designate an analytical method for ethanol. See Draft Permit Comment 9, p. 3. In response, EPA directed the permittee to "any method approved under 40 CFR Part 136, as stated in section II.C.d." RTC, Exh. E, Response 21, p. 45 of 72.

method for ethanol. The RTC does not justify why an approved 40 CFR 136 method was not used to comply with the monitoring requirements in this permit.

Part I.A.1 of the Final Permit includes LC50 (Lethal Concentration 50 Percent) of > 50. Footnote 8 is not consistent with Part I.A.1 in that it states "The **"50 % or greater limit** (emphasis added)" is defined as a sample which is composed of 50 % or greater effluent, the remainder being dilution water. The limit is considered to be a maximum daily limit." Is the permit condition supposed to be an LC50 greater than or equal to 50% effluent, or an LC50 greater than 50% effluent? This must be clarified.

ExxonMobil questions the need to contact the "appropriate U.S. Coast Guard Officer." See Final Permit, Exh. A, Part I.A.17. Section 311 of the CWA requires immediate notification to the National Response Center (NRC), which is manned by the U.S. Coast Guard. The NRC notifies the U. S. Coast Guard and the U.S.EPA. ExxonMobil requests that the "appropriate U.S. Coast Guard Officer" be changed to National Response Center.

The requirement to submit a letter/report to the Director of Public Works (DPW) of Everett is not appropriate since the DPW does not receive the discharge of hydrostatic test water. See Final Permit, Exh. A, Part I.A.23.f. Additionally, an address is not provided in the Permit. This requirement should be deleted.

ExxonMobil questions the requirement in the Final Permit Part I.B.4.e which requires the facility to provide Best Management Practices to "proper handling of salt or materials containing salt that are used for deicing activities." ExxonMobil believes that this is obviously standard language; however it does not make sense for a facility to manage salt when the discharge is to an estuary. It is an additional recordkeeping requirement that EPA did not provide a basis in the RTC, Exh. E, to justify its use.

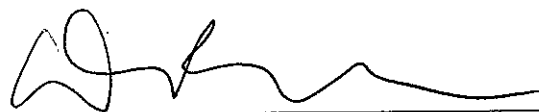
CONCLUSION

For the reasons stated herein, ExxonMobil respectfully requests Review be granted on its appeal of the Contested Conditions enumerated on the attached chart.

Respectfully submitted,

EXXONMOBIL OIL CORPORATION

By its Counsel,

A handwritten signature in black ink, appearing to read 'Dianne Phillips', is written over a horizontal line.

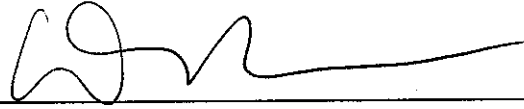
Dianne Phillips, BBO #552982
Holland & Knight LLP
10 St. James Avenue
Boston, MA 02116
(617) 573-5818
FAX (617) 523-6850

Contested Conditions

Part	Term or Provision Appealed	Subject Matter
Part I.A.1	Outfall 001B elimination	Discharge point
Part I.A.14	Peak Flow	Flow
Part I.A.21	Certification & flow control	Flow
Part I.A.14 & 21	Flow & operational restrictions	Lack of compliance schedule
Part I.A.14 & 21	10 year, 24-hour storm	Wet weather discharge overflow
Part I.A.1, Oil & Grease	5 mg/l	Effluent Limitation
Part I.A.1, Benzene	5 µg/l	Effluent Limitation
Part I.A.1, BTEX	100 µg/l	Effluent Limitation
Part I.A.1, Methyl Tertiary-Butyl Ether	70 µg/l	Effluent Limitation
Part I.A.18	Compliance/noncompliance for Polycyclic Aromatic Hydrocarbons (PAHs)	Lack of compliance schedule
Part I.A.1, footnote 9	Monthly metals and hardness monitoring	Frequency
Part I.A.1	hardness, total solids, calcium, and magnesium sampling	Analytical
Part I.A.1, footnote 1	Heated purge requirement	Analytical
Part I.A.1, footnote 1	Ethanol analytical method	Analytical
Part I.A.1, footnote 8	WET testing	Analytical
Part I.A.17	Notification	Notification
Part I.A.23.f	Notification	Notification
Part I.B.4.e	Manage salt	BMP

CERTIFICATE OF SERVICE

I hereby certify under the pains and penalties of perjury that this document was served by regular U.S. Mail on October 28, 2008, to the U.S. Environmental Protection Agency Office of Regional Counsel, Attn: Samir Bukhari, Esq., Region I, 1 Congress Street, Suite 1100, Boston, MA 02114.

A handwritten signature in black ink, appearing to read 'Dianne R. Phillips', written over a horizontal line.

Dianne R. Phillips (BBO No. 552982)

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